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Martinez

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(54) **ARTICLE OF ADORNMENT WITH INTERCHANGEABLE PARTS**

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A44C 5/00	(2006.01)
A44C 15/00	(2006.01)
A44C 5/18	(2006.01)

(52) **U.S. Cl.**

CPC ***A44C 13/00*** (2013.01); ***A44C 5/003*** (2013.01); ***A44C 5/18*** (2013.01); ***A44C 15/004*** (2013.01); *A44D 2203/00* (2013.01); *A44D 2205/00* (2013.01)

(58) **Field of Classification Search**

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USPC ..... 63/3, 3.1, 3.2, 9, 11, 21–23; 368/281, 368/282; 224/164, 167, 178, 179, 219; 24/265 WS; D11/3, 4, 6, 79, 94

See application file for complete search history.

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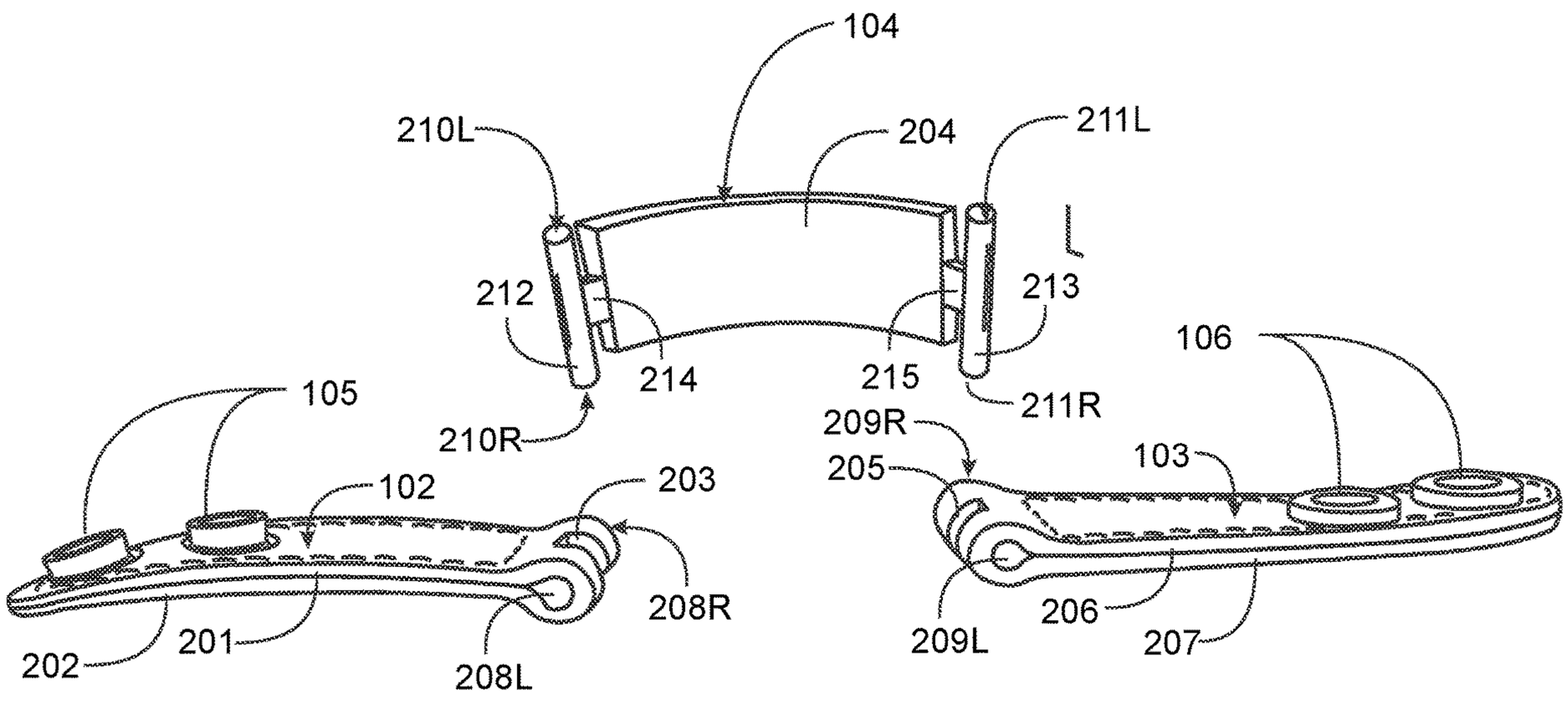
(57) **ABSTRACT**

A bracelet has a metal wrist piece in an arc of a user's wrist, T-bars implemented on opposite ends, each T-bar comprising a round bar of a length substantially the width of the body of the wrist piece, spaced apart from the body of the wrist piece by a T element, a first compound strap of flexible material with a through passage at one end in the direction of the width, a central slot opening into the passage, and a male snap element presented on a surface of the compound strap proximate an end of the strap opposite the through passage, and a second compound strap like the first but with a female snap element. The bars at the ends of the body of the wrist piece are inserted into the through passages through the slots into the through passages, joining the straps to the wrist piece on opposite sides.

14 Claims, 5 Drawing Sheets



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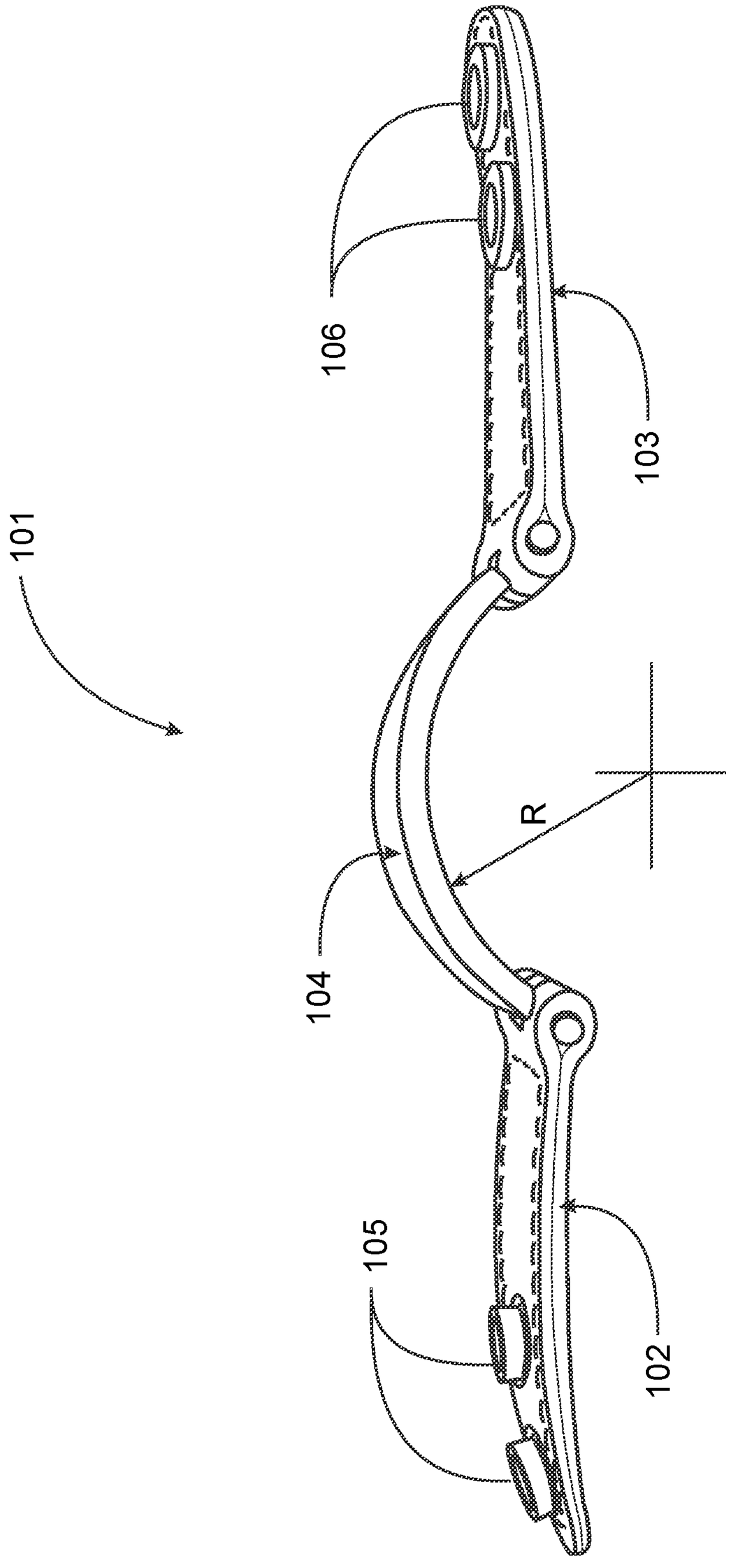

Fig. 1

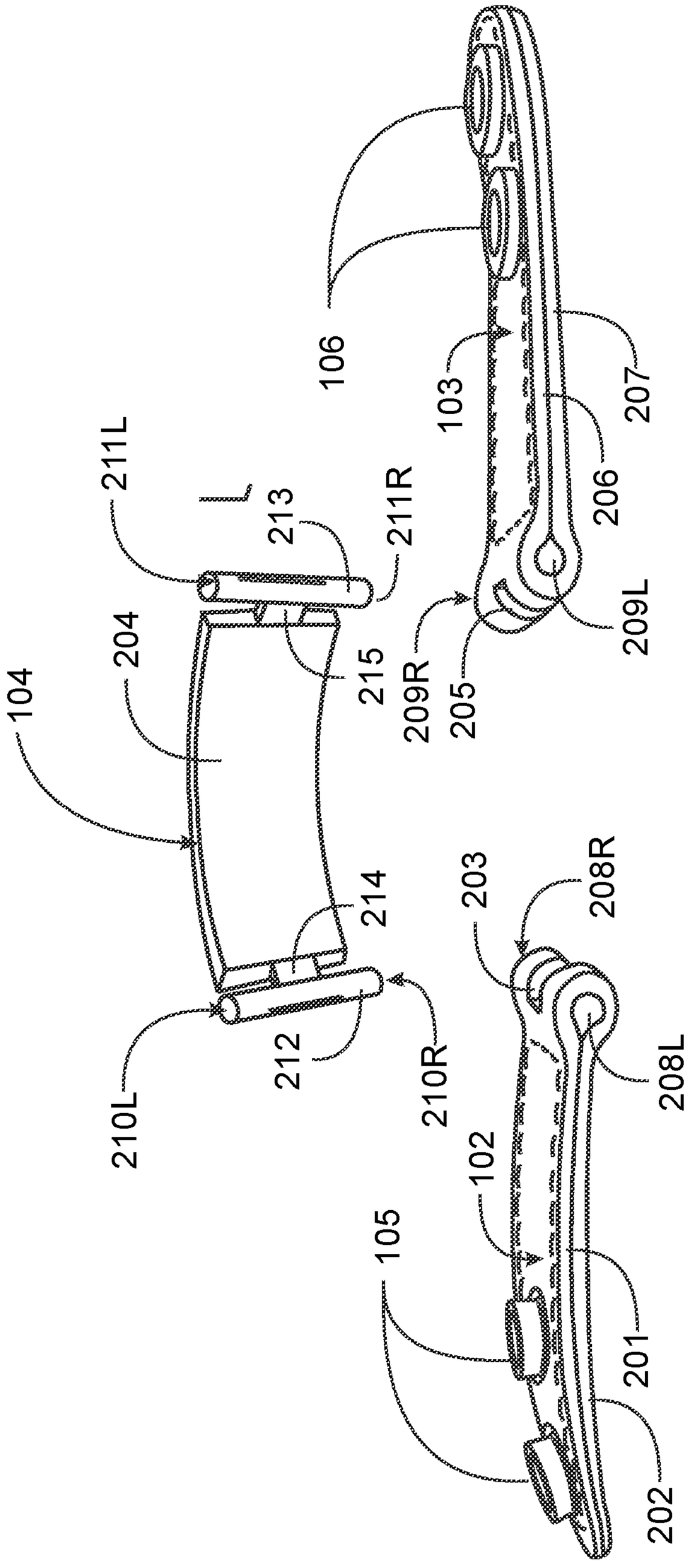
106
103
207
211L
211R
213
204
104
215
209R
205
209L
206
214
203
208R
212
210R
208L
105
102
201
202

Fig. 2

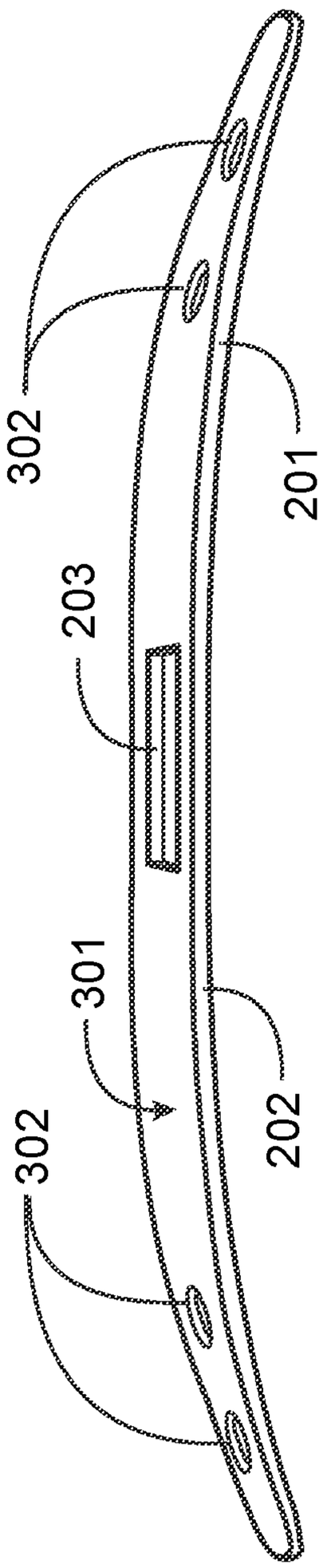
302
203
301
302
202
201

Fig. 3A

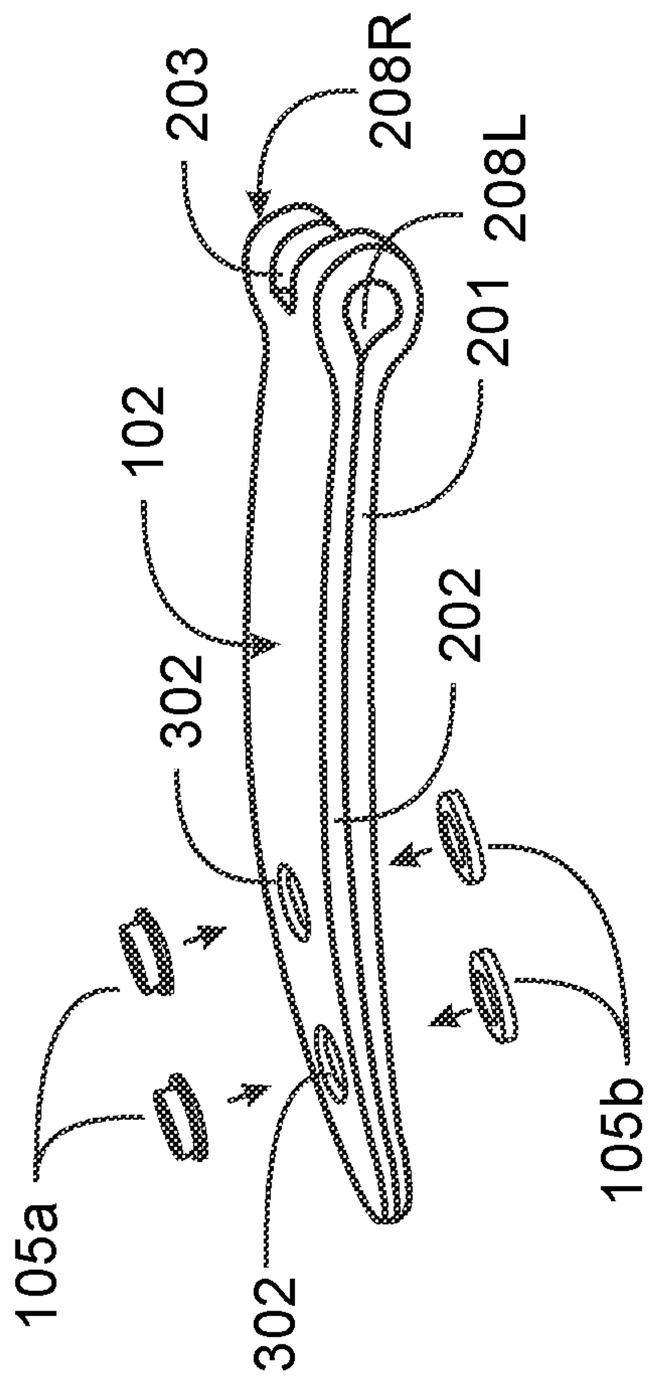
203
208R
208L
102
201
302
202
105a
105b
302

Fig. 3B

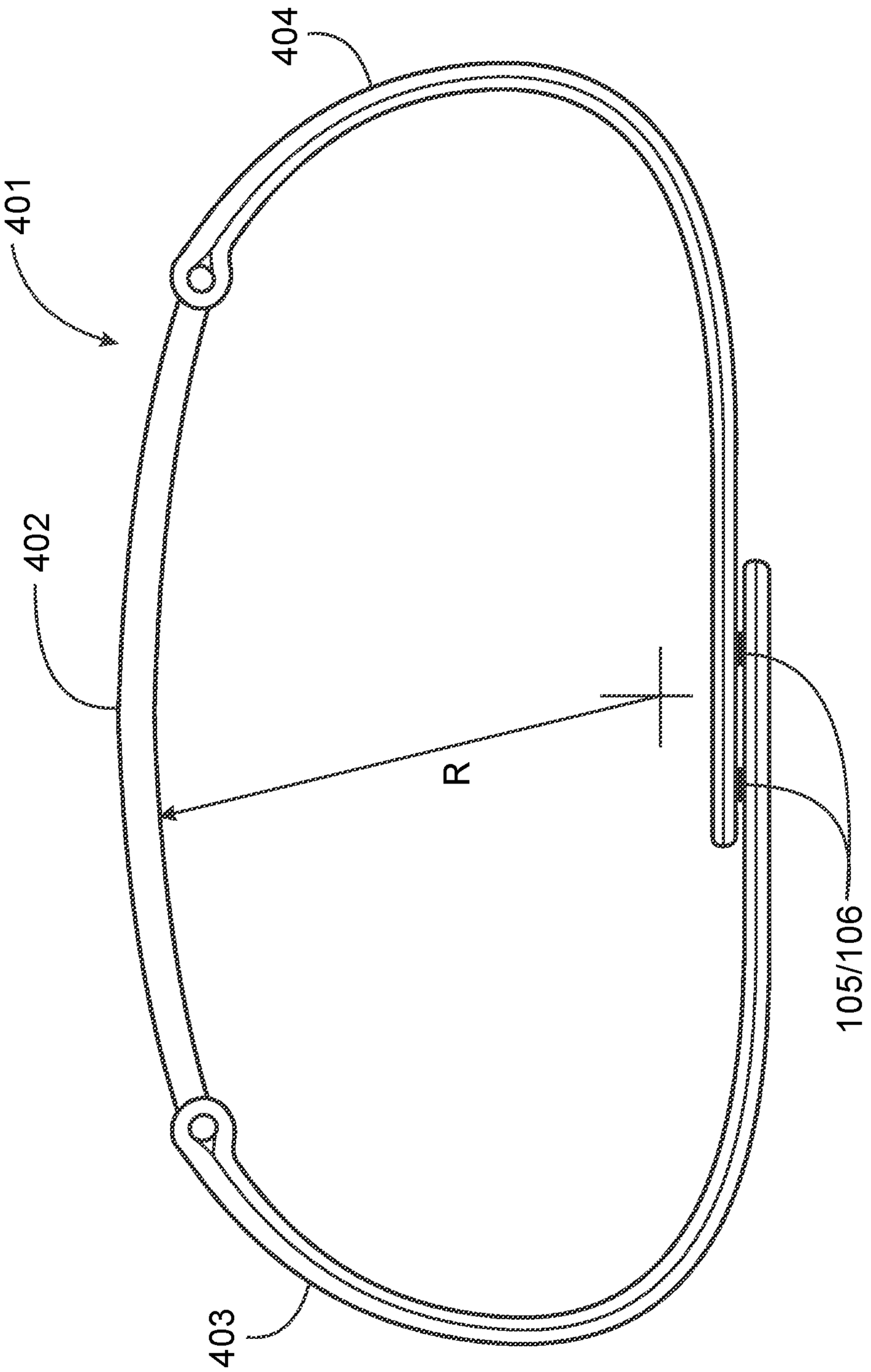

Fig. 4

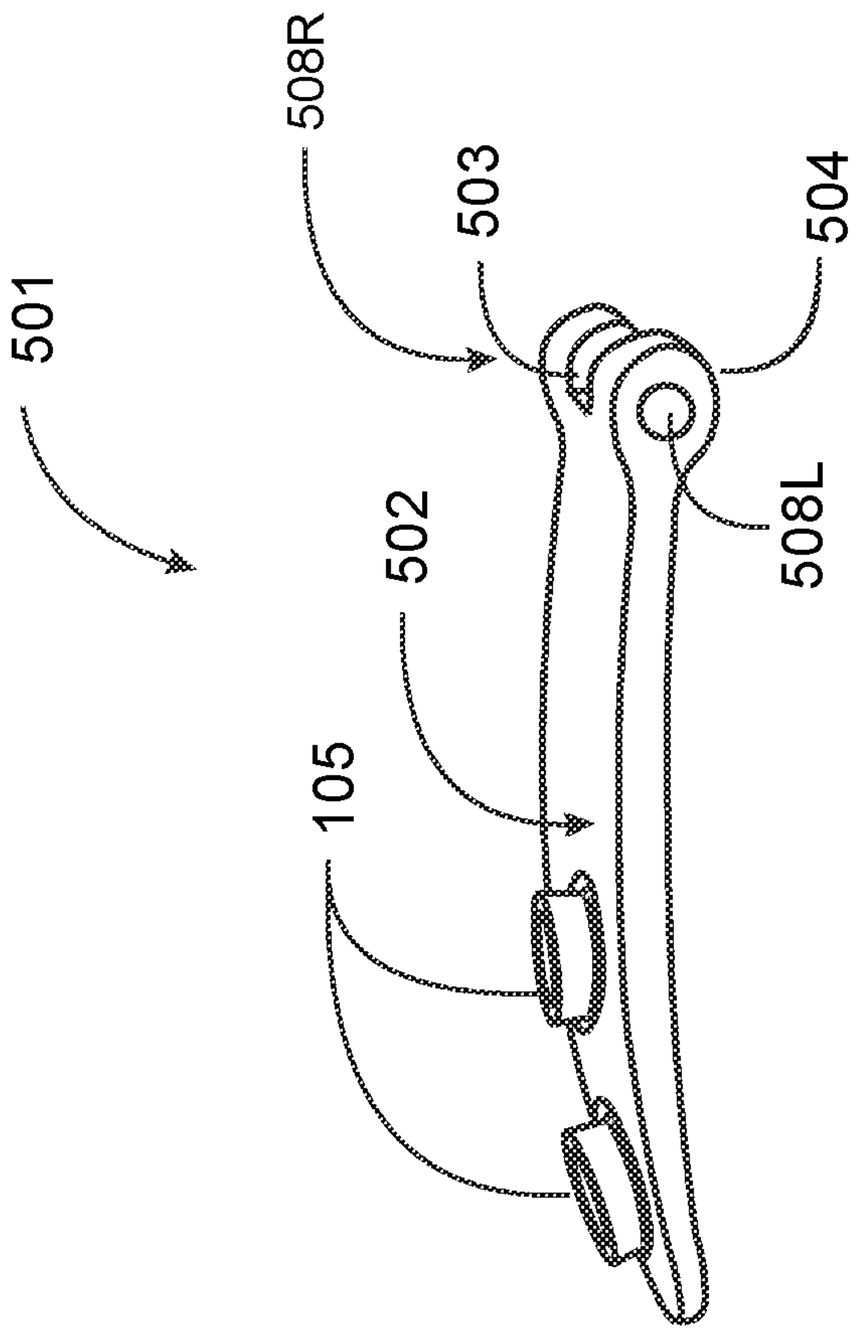

Fig. 5

ARTICLE OF ADORNMENT WITH INTERCHANGEABLE PARTS

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention is in the technical field of wearable articles of adornment such as jewelry and belt fastening, and pertains more particularly to an ornament with unique band attachment sites at opposing ends.

2. Description of Related Art

Bracelets, belt buckles and other jewelry have long been known in the art, but there is always room for innovation to provide articles of adornment that have a different look and feel, and perform functions not formerly known in the art.

BRIEF SUMMARY OF THE INVENTION

In one embodiment of the present invention an article of adornment is provided in the form of a bracelet. Although a bracelet is provided in this embodiment, one with skill understands that one may implement the invention as a bracelet, belt around the waist, an armband or a wearable article of adornment around any part of the body that the article can be affixed to.

In this embodiment the bracelet may comprise a metal wrist piece having a body implemented in an arc of less than 180 degrees, approximating curvature of a user's wrist, the body having a thickness and a width. In this embodiment a body of the wrist piece includes a rectangular shape having a length considerably longer than a width. The metal piece includes T-bars implemented on opposite ends of the length of the body of the wrist piece, each T-bar comprising a substantially round bar element of a length substantially the width of the body of the wrist piece. The T-bars may be separated from the body of the wrist piece by a T element having a width in the direction of the width of the body, yet substantially less that the width of the body.

A first compound strap of flexible material may be provided having a width substantially the width of the body of the wrist piece, a through passage at one end in the direction of the width, a central slot opening into the passage, and a male snap element presented on a surface of the compound strap proximate an end of the strap opposite the through passage. A second compound strap of flexible material may be provided having a width substantially the width of the body of the wrist piece, a through passage at one end in the direction of the width, a central slot opening into the passage, and a female snap element presented on a surface of the compound strap proximate an end of the strap opposite the through passage. One with skill understands that a means for affixing the straps in a loop via the snaps may be done in a variety of ways including stitching, hook and loop, etc. Additionally, one strap may be provided with the single integral strap attaching at each end to a T-bar of the wrist piece. The bars of the T-bars at the ends of the body of the wrist piece are inserted into the through passages through the slots into the through passages, joining the straps to the wrist piece on opposite sides.

In one embodiment the arc has a radius of between 0.75 inches and 2.0 inches inclusive. Also in one embodiment the body of the wrist piece is formed of gold, silver, platinum, copper, titanium, bronze, brass or stainless steel. Alternatively the wrist piece or body of the article of adornment

may be manufactured from any rigid material including epoxy, acrylic, wood, glass, crystal, porcelain etc. In one embodiment the body of the wrist piece has decorations on an outer surface. And in one embodiment the decorations comprise miniature renditions of known artifacts. Additionally, the bands may have designs and patterns as well.

In one embodiment the decorations comprise text or graphics in relief. In one embodiment the flexible material is leather. In one embodiment the flexible material is natural or artificial rubber, or a polymer material. In one embodiment the bracelet further comprises a compartment implemented in the body of the wrist piece, enabled to carry small artifacts. And in one embodiment the snap elements are hook and loop fasteners, magnetic clasps, hole and post, and watch-style buckles.

In another aspect of the invention a method of forming a compound flexible fabric strap for a bracelet is provided, comprising cutting a single strap of material of a thickness, width, and length, cutting a first round hole proximate one end of the single strap of material, cutting a second round hole proximate an opposite end of the single strap of material, such that the ends with the holes cut are mirror images, cutting a through slot of a length substantially shorter than the strap length, the through slot centered on the width of the strap, and spanning a midpoint of the length of the single strap, folding the single strap of material lengthwise about the midpoint of the strap length, joining the ends together, matching the round holes through the strap, inserting opposite portions of a snap element into the round hole and engaging and securing the snap element in the hole, and stitching the two regions together, forming a through passage in a direction of the width at an end furthermost from the snap elements, with the slot providing an entrance into the through passage.

In one embodiment the method further comprises cutting two round holes proximate one end of the single strap of material, and inserting two snap elements from below through the two round holes. In one embodiment the flexible material is leather. And in one embodiment the flexible material is natural or artificial rubber, or a polymer composite.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

FIG. **1** is a perspective side-elevation view of a bracelet according to an embodiment of the present invention.

FIG. **2** is a partially exploded view of the bracelet of FIG. **1**.

FIG. **3**A is a flattened view of a leather strip for forming a strap element for the bracelet of FIGS. **1** and **2**.

FIG. **3**B is a side view of the strip of FIG. **3**A folded to insert snap elements.

FIG. **4** is a edge-on plan view of a belt and body apparatus according to an embodiment of the present invention.

FIG. **5** is an elevation view for an alternative strap.

DETAILED DESCRIPTION OF THE INVENTION

FIG. **1** is a perspective side-elevation view of a bracelet **101** according to an embodiment of the present invention. FIG. **2** is a partially exploded view of the bracelet of FIG. **1**. FIG. **3**A is a flattened view of a leather strip for forming a strap element for the bracelet of FIGS. **1** and **2**. FIG. **3**B is a side view of the strip of FIG. **3**A folded for inserting snap elements.

Referring to FIG. **1**, bracelet **101** comprises a relatively heavy metal wrist piece **104** shaped in an arc with a radius R that may vary in different embodiments according to the shape and size of a wearer's wrist. In one embodiment R may be about 1 inch to conform comfortably to a wrist of a user. R may in some embodiments be as much as 2.0 inches, or as small as 0.75 inches, but will typically be in this window. The arc length of the wrist piece or body **104** is generally about 115°-120°, but may be somewhat more or less in some embodiments, naturally adjusting this measurement depending on the radius and central angle.

Wrist piece **104** has a T-Bar implemented at each end of the arc of the wrist piece, the T-Bars are not seen in FIG. **1**, but are shown in detail in FIG. **2** and described in enabling detail below with reference to FIG. **2**.

Bracelet **101** has a compound leather strap **102** joined to the T-Bar at one end of the wrist piece, and a compound leather strap **103** joined to the T-Bar at the opposite end of the wrist piece. Leather strap **102** includes two male snap elements **105** in this example, and leather strap **103** has two female snap elements **106**, compatible with snap elements **105**, such that the wrist piece may be placed on a wearer's wrist, and the compound leather straps may be formed around the wrist, and the snap elements joined, to secure the bracelet on the wearer's wrist. The dual snaps serve to more efficiently secure the bracelet onto a wrist, for example.

Referring now to FIG. **2**, wrist piece **104** is shown disengaged from leather strap elements **102** and **103**, and rotated somewhat around a horizontal axis, to better illustrate T-Bar elements. The T-Bar 5 elements comprise generally round bars **212** and **213**, affixed to each end of a body **204** of the wrist piece by T elements **214** and **215**, such that the bars are spaced apart from the end of the wrist piece by common length of the T elements **214** and **215**. T elements **214** and **215** serve to space the T bars **212** and **213** from the body **204**. Depending on a thickness of material of the straps, the common length of T elements **214** and **215** may be adjusted to be longer thereby accommodating a thicker strap material, or shorter to accommodate a thinner material of the straps. As clearly seen in FIG. **2** the width of the T-bar exceeds a width of the body.

Also referring to FIG. **2**, one end of each of leather straps **102** and **103** is formed in a shape that present passages **208**L, **208**R, **209**R and **209**L in a direction orthogonal to the length of the strap, such that bar ends **210**L, **210**R, **211**R and **211**L may engage the passages via slots **203** and **205**. The passages **208** and **209** are intersected by slots **203** and **205** to accommodate T elements **214** and **215**.

Referring now to FIG. **3**A, a single strip of leather is shown as element **301**. In some embodiments the strip of leather may be comprised of two or more layers of fabric or leather. This strip, with male snap elements installed, becomes compound strap **102** as seen in FIG. **1** and FIG. **2**. Region **202** has two through holes **302** punched as shown, and region **201** also has two through holes **302** punched to be at common spacing and position in mirror image to region **202**.

The inventor is aware of the problems of placing toxic materials such as chromium processed leather and chrome plated metal next to the skin, so care is taken to provide materials that do not irritate the skin or introduce toxins. For example strap **301** may be manufactured from one or more layers of material, such as leather, wherein a layer of vegetable tanned leather would be overlaid, either partially or entirely, over portion **201** in order to protect a wearers skin. In some embodiments layered portions of the leather making up straps **301** may be removed leaving a leather strap of a thinner dimension, allowing a layer of vegetable tanned leather or an ornamental material to be glued or otherwise affixed enabling a strap of uniform thickness. In other embodiments an extension of a different material may be added to strap ends prior to folding over and stitching/gluing. This is done by removing an inner portion of the existing leather strap leaving a top and bottom layer, inserting the new material between the layers, enabling the layers to overlap the new material by ¼ to ½ inch and gluing in place. Then folding the strap over to glue and stich closed.

FIG. **3**B illustrates strip **301** folded about center with through holes **302** on each end matched and aligned. Snap elements **105** of FIG. **3** are shown in FIG. **3** as elements **105***a* and **105***b*, which are assembled through holes **302** and engaged and clinched, similar to rivets, as is known in the art, forming male snap elements **105** assembled through the two layers of leather. After the snap elements are assembled to the folded strap, regions **201** and **202** are stitched together as shown in FIG. **1**, forming the compound strap **102** with passages **208**L, **208**R and slot **203**. In an alternative embodiment, regions **201** and **202** are glued and/or stitched together prior to the snap assembly being inserted and affixed.

Strap **103** is produced in essentially the same way as strap **102**, except female snap elements **106** are assembled through the holes **302** after folding and before stitching. In another embodiment stitching and gluing occurs prior to inserting the snap elements. Once the straps are produced, the wrist piece **104** is assembled to the straps, or the straps are joined to the wrist piece.

In one embodiment, the wrist piece may be engaged as the folding and stitching takes place, but preferably, the wrist piece is assembled to each strap by passing first one end **211**L of the bar **213** into passage **209**L via slot **205**, and then stretching the leather (or other flexible strap material) to get the other end **211**R of the bar **213** into passage **209**R via the slot **205**. Additionally, bar end **210**L of bar **212** enters passage **208**L via slot **203** and bar end **210**R enters passage **208**R via slot **203**. This procedure enables a user to substitute different wrist pieces into a bracelet, to change the nature and characteristics of the bracelet for different occasions, and to put straps of different color, texture and material onto wrist pieces.

In FIGS. **1** and **2** wrist piece **104** is illustrated as a metal bar of approximately rectangular cross-section, and this may be the finished characteristic in some embodiments. For example, in one embodiment the metal wrist piece may be gold, and gold of different color and alloy in different embodiments. In other embodiments the metal may be silver, or stainless steel. In other embodiments there may be specific decoration on the outer surface of the wrist piece, such as gear teeth, either straight or at an angle. Text and graphics may be presented in relief on wrist pieces in different embodiments as well.

The inventor believes the T-bar construction and the nature of the leather straps provide a functional interface enabling a user to present a variety of different sizes and appearances in a bracelet, specifically flexibility with interchangeable strap and ornament arrangements.

FIG. **4** is an edge on plan view of a belt and body apparatus according to an alternative embodiment of the present invention. Body **402** in this example may be referred to as a buckle, as it occupies the place of a buckle when in use, but does not have a buckle function, as is usually understood in the art. Instead, body **402** may be a decorative body, such as the sort of buckle awarded to prize fighters, for example. Body **402** may be provided in a variety of sizes, and with a variety of decorative finishes for a variety of

purposes. Body **402** may have a length of between 1 and 10 inches. It is formed in a radius R that conforms to a curvature of the front area of a users abdominal region, where a belt buckle is expected to be. It may at first seem that the center for radius R is incorrect, but this is simply because the cross-section of a human body is not circular (for most people) but is oval.

Regardless of the arc length, height, or decoration for body **402**, there are T-bars at each end in the fashion of T-bars **212** and **213** attached at each end of body **402**. Body **402** assembles by the T-bars to belt portions **403** and **404**, which are constructed similarly to bands **102** and **103** described above. That is, one strip of leather or other suitable material, of suitable length, is folded over glued and/or stitched and snap fasteners installed, to form a belt portion with male snap elements at one end and a through passage at the other end to accept a T-bar of the body. A second belt portion is assembled and prepared using female snap elements and the two belt portions are joined to the body by the T-bars, just as for the bracelet described above. It will be apparent to the skilled person that the belt portions may be of any length and width, and a multitude of methods may be used to join the two ends such as hook and loop, magnetic clasp, watch type buckle and one or more snap fasteners may be installed to secure the belt.

FIG. **5** is a perspective view of a band assembly **501** in an embodiment of the invention, wherein the band is made in a different manner than bands **102** and **103** of FIG. **1**. Band assembly **501** comprises a molded band **502** with snap fasteners **105**. In this example band **502** is molded from rubber, artificial rubber, or any suitable flexible material, such as a polymer material, in one piece. There is no need to fold and stitch to complete the assembly. In some cases the rounded end **504** with through passage **508**L and **508**R. Slot **503** may be formed in the molding process, and in some cases they may be formed after molding in a machining operation, for example. The same is true for holes to accommodate snap elements, which may be either formed in molding or punched after molding.

It will be apparent to the skilled person that the molding process for the bands for a bracelet may be also used for belt portions to make a belt assembly as illustrated in FIG. **4**.

The skilled person will understand that there may be a variety of alterations to embodiments of the invention described herein, without departing from the scope of the invention. For example, the strap material is not limited to leather, but may be other materials, such as natural or artificial rubber, or any one of a number of polymer materials. The snap elements described are not limiting as well, as there are a variety of snaps and hook and loop fasteners that might be used. In one embodiment magnets, magnetically permeable materials and watch-style buckles may be employed to secure the straps to a user's wrist. There may further be variations in the length and diameter of the bars in the T-bars, and there may be differences in the way that the T elements are joined to the body of the wrist piece and to the bars of the T-bars. In some embodiments an indention or a compartment may be provided in either the topside or the underside of the body of the wrist piece, for a user to carry any number of small items. In some embodiments a lens may be provided over a compartment and a light implemented within, and there may be provision for power for the light and for switching a light off and on. There are many such possible alterations within the scope of the invention.

I claim:

1. A bracelet, comprising:

a metal wrist piece having a body implemented in an arc length of less than 180 degrees, approximating curvature of a user's wrist, the body having a thickness and a width;

T-bars integrated with and implemented on opposite ends of the body of the wrist piece, each T-bar comprising a substantially round bar element of a length exceeding the width of the body of the wrist piece, spaced apart from the body of the wrist piece by a T element;

a first compound strap of flexible material having a width substantially the width of the body of the wrist piece, a through passage at one end in the direction of the width, a central cutout having a width to accommodate the T-bar, the cutout opening into the passage, and a male snap element presented on a surface of the compound strap proximate an end of the strap opposite the through passage; and

a second compound strap of flexible material having a width, a through passage at one end in the direction of the width, a central cutout opening into the passage, and a female snap element presented on a surface of the compound strap proximate an end of the strap opposite the through passage;

wherein the round bar elements are each connected at the opposite ends of the body of the wrist piece via the T element and each round bar element is inserted through the cutout into the through passage of one of the first and second compound strap, joining the straps to the opposite ends of the wrist piece.

2. The bracelet of claim **1** wherein the arc has a radius of between 0.75 inches and 2.0 inches inclusive.

3. The bracelet of claim **1** wherein the body of the wrist piece is formed of metal including any one of gold, silver, platinum, bronze, copper, brass, titanium and stainless steel.

4. The bracelet of claim **1** wherein the body of the wrist piece has decorations on an outer surface.

5. The bracelet of claim **4** wherein the decorations comprise miniature renditions of known artifacts.

6. The bracelet of claim **4** wherein the decorations comprise text or graphics in relief.

7. The bracelet of claim **1**, wherein the width of the flexible material is less than the width of the body.

8. The bracelet of claim **1**, wherein the width of the flexible material is greater than the width of the body.

9. The bracelet of claim **1** wherein the flexible material is leather.

10. The bracelet of claim **1** wherein the flexible material is natural or artificial rubber, or a polymer material.

11. The bracelet of claim **1** comprising a compartment implemented in the body of the wrist piece, enabled to carry small artifacts.

12. The bracelet of claim **1** wherein the snap elements are hook and loop fasteners.

13. The bracelet of claim **1** wherein the snap elements are a watch-style buckle.

14. The bracelet of claim **1** wherein the snap elements are a magnetic clasp.

* * * * *